



Please type a plus sign (+) inside this box →

PTO/SB/08A (08-00)

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known #8	
		Application Number	10/080,640
		Filing Date	February 21, 2002
		First Named Inventor	VON BEHRENS
		Group Art Unit	3748
		Examiner Name	NGUYEN, HOANG M
Sheet 1	of 3	Attorney Docket Number	NANI-002/01US

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
X	A1	348,841		Hainley	09-07-1886
	A2	1,658,669		Cohn et al.	02-07-1928
	A3	2,518,941		Satchwell et al.	08-15-1950
	A4	2,975,307		Schroeder et al.	03-14-1961
	A5	3,452,175		Wilkes	06-24-1969
	A6	3,452,309		Wilkes	06-24-1969
	A7	3,641,296		Schwarz	02-08-1972
	A8	3,725,835		Hopkins et al.	04-03-1973
	A9	3,940,935		Richardson et al.	03-02-1976
	A10	4,027,953		Jacob	06-07-1977
	A11	4,150,544		Pachter	04-24-1979
	A12	4,559,512		Yaeger et al.	12-17-1985
	A13	4,579,006		Hosoda et al.	04-01-1986
	A14	4,586,335		Hosoda et al.	05-06-1986
	A15	4,626,085		Suzuki	12-02-1986
	A16	4,742,680		Mecca	05-10-1988
	A17	4,751,821		Birchard	06-21-1998
	A18	4,806,815		Honma	02-21-1989
	A19	4,811,564		Palmer	03-14-1989
	A20	4,829,767		Mecca	05-16-1989
	A21	4,841,730		McDonald	06-27-1989
	A22	4,884,557		Takehana et al.	12-05-1989
	A23	4,932,210		Julien et al.	06-12-1990
	A24	4,977,886		Takehana et al.	12-18-1990
	A25	5,014,520		Omer et al.	05-14-1991
	A26	5,092,781		Casciotti et al.	03-03-1992
	A27	5,127,228		Swenson	07-07-1992
	A28	5,129,753		Wesley et al.	06-14-1992
	A29	5,165,897	A	Johnson	11-24-1992
	A30	5,166,832		Zychowicz	11-24-1992
	A31	5,172,551		Nakajima et al.	12-22-1992
	A32	5,235,225		Colgate et al.	08-10-1993
	A33	5,312,152		Woebkenberg Jr. et al.	05-17-1994
	A34	5,344,506	A	DeAngelis	09-06-1994
	A35	5,556,370		Maynard	09-17-1996
	A36	5,563,466		Rennex et al.	10-08-1996
	A37	5,618,066		Fu-Hsiang	04-08-1997
	A38	5,685,148		Robert	11-11-1997
	A39	5,747,993		Jacobsen et al.	05-05-1998
	A40	5,763,979		Mukherjee et al.	06-09-1998
	A41	5,770,913		Mizzi	06-23-1998
	A42	5,771,742		Bokaie et al.	06-30-1998
	A43	5,829,253		Long et al.	11-03-1998

RECEIVED
AUG 29 2003
TECHNOLOGY CENTER R3700

Examiner Signature	<i>HOANG M NGUYEN</i>	Date Considered	11/19/03
--------------------	-----------------------	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



A44	5,901,554		Greschik	05-11-1999
A45	5,917,260		Garcia et al.	06-23-1999
A46	6,019,113		Allston et al.	02-01-2000
A47	6,069,420		Mizzi et al.	05-30-2000
A48	6,126,115		Carrier et al.	10-03-2000
A49	6,164,784	A	Butera et al.	12-26-2000
A50	6,218,762		Hill et al.	04-17-2001
A51	6,326,707	B1	Gummin et al.	12-04-2001
A52	6,327,855		Hill et al.	12-11-2001
A53	6,333,583		Mahadevan et al.	12-25-2001
A54	6,364,496	B1	Boddy et al.	04-02-2002
A55	6,374,608	B1	Corris et al.	04-23-2002
A56	6,404,098	B1	Kayama et al.	06-11-2002
A57	6,434,333	B2	Tanaka et al.	08-13-2002
A58	6,450,064	B1	Christiansen et al.	09-17-2002
A59	6,574,958	B1	MacGregor	06-10-2003

RECEIVED
 AUG 29 2003
 TECHNOLOGY CENTER R3700

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T
		Office	Number	Kind Code (if known)			
A	B1	DE	4209815	A1	Braun AG	09-1993	
	B2	DE	19509177	A1	Ziegler	09-1996	
	B3	EP	0147491	A1	Spar Aerospace Limited	07-10-1985	
	B4	FR	2730766		Aerospatiale	08-23-1996	
	B5	GB	2093589	A	Pilkington PE Limited et al.	09-02-1982	
	B6	GB	2334046	A	Western Atlas International, Inc.	08-1999	
	B7	JP	07 274561	A	Olympus Optical Co. Ltd.	10-20-1995	abstract
	B8	KR	9605617	B1	Daewoo Motor Co., Ltd.	04-30-1996	
	B9	KR	9607599	B1	Daewoo Motor Co., Ltd.	06-07-1996	
	B10	WO	98/08355		Northern Telecom Limited	02-1998	
	B11	WO	01/12985	A1	The Toy Foundry, Inc.	02-22-2001	
	B12	FR	77 09117		Sinai, Philippe	10-20-1978	
	B13						
	B14						
	B15						

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
B	C1	Aircraft Maneuverability, http://www.cs.ualberta.ca/~database/MEMS/sma_mems/flap.html , last modified August 17, 2001, printed April 17, 2003, pp. 1-2	
	C2	BOKAIE, Latch-Release Pin Puller with Shape-Memory Alloy Actuator, Lewis Research Center, http://www.nasatech.com/Briefs/Feb98/LEW16511.html , printed April, 17, 2003	
	C3	Bone Plates, http://www.cs.ualberta.ca/~database/MEMS/sma_mems/bone.html , last modified August 17, 2001, printed April 17, 2003, pp. 1-2	
	C4	Glossary: Pseudo-elasticity (or super-elasticity), http://www.cs.ualberta.ca/~database/MEMS/sma_mems/glossary.cgi , last modified August 17, 2001, printed April 17, 2003, pp. 1-2	

Examiner Signature	<i>Flora H. Wilson</i>	Date Considered	4/14/03
--------------------	------------------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

OIPE
 AUG 28 2003
 PATENT & TRADEMARK

C5	Glossary: Shape Memory Effect, http://www.cs.ualberta.ca/~database/MEMS/sma_mems/glossary.cgi , last modified August 17, 2001, printed April 17, 2003, pp. 1-2
C6	GRANT et al., "Variable Structure Control of Shape Memory Alloy Actuators," <i>IEEE Control Systems</i> 17(3):80-88, 1997
C7	HASHIMOTO et al., "Application of Shape Memory Alloy to Robotic Actuators," <i>J. Robotic Systems</i> 2(1):3-25, 1985
C8	HIROSE et al., "A new design of servo-actuators based on the shape memory effect," <i>Theory and Practice of Robots and Manipulators</i> , 339-349, 1984
C9	HODGSON et al., Shape Memory Alloys, http://www.sma-inc.com/SMAPaper.html , 1999, printed April 17, 2003, pp 1-12
C10	IKUTA et al., "Mathematical model and experimental verification...", <i>IEEE Robotics and Automation</i> 4:103-108, 1991
C11	IKUTA et al., "Shape Memory Alloy Servo Actuator System with Electric Resistance Feedback and Application for Active Endoscope," <i>Proc. IEEE Int. Conf. On Robotics and Information</i> 427-430, 1988
C12	IKUTA, "Micro/Miniature Shape Memory Alloy Actuator," <i>IEEE Robotics and Automation</i> 3:2156-2161, 1990
C13	KURIBAYASHI, "A New Actuator of a Joint Mechanism Using TiNi Alloy Wire," <i>Int. J. Robotics</i> 4(4):47-58, 1986
C14	MILLS JW, "Łukasiewicz' Insect: The Role of Continuous-Valued Logic in a Mobile Robot's Sensors, Control, and Locomotion," in <i>Siquito: Advanced Experiments with a Simple and Inexpensive Robot</i> Chapter 12, pp. 197-211, IEEE Computer Society Press, Los Alamitos, CA USA ISBN 0-8186-7408-3, 1993
C15	OTSUKA et al., "Shape Memory Materials," pp. 36-48, Cambridge University Press, Cambridge, England, 1998, ISBN 0-521-44487X
C16	REDINIOTIS et al., Development of a Shape-Memory-Alloy Actuated Biomimetic Hydrofoil, <i>Journal of Intelligent Material Systems and Structures</i> , 13:35-49, 2002
C17	Robotic Muscles, http://www.cs.ualberta.ca/~database/MEMS/sma_mems/muscle.html , last modified August 17, 2001, printed April 17, 2003, pp. 1-2
C18	Shape Memory Alloys, http://www.cs.ualberta.ca/~database/MEMS/sma_mems/sma.html , last modified August 17, 2001, printed April 17, 2003, pp. 1-4
C19	SMITH et al., Development of Shape Memory Alloy (SMA) Actuated Mechanisms for Spacecraft Release Applications, SSC99-XI-7, 13 th AIAA/USU Conference on Small Satellites
C20	Technical Characteristics of FLEXINOL™ Actuator Wires, Dynalloy, Inc., printed on February 26, 2001
C21	WPI Database XP002202662, "Shape memory metal actuator control device - has minimum and maximum detector to monitor state of actuator based on its minimum and maximum allowable impedance," October 20, 1995

RECEIVED

AUG 29 2003

Examiner Signature	<i>Shank N. Kulkarni</i>	Date Considered	11/19/03
--------------------	--------------------------	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.